

The United States Improvised Explosive Device Fight: Technical
Shortcomings and the Value of Strategy

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Introduction: Emergence of a Killer

Improvised explosive devices (IEDs) are synonymous with US casualties as they remain the number one killer of US troops in Iraq. Specifically, they have caused over 60% of all combat casualties in Iraq.¹ When Operation Iraqi Freedom (OIF) commenced in March 2003, the IED was not a threat to US ground forces. However, by the summer of 2004, the IED threat in Iraq was credible, prevalent, and lethal. Five years later in 2008, the IED has become a part of US military vernacular. The preponderance of the US military response to the IED threat involves technical solutions at the tactical level of war, specifically, enhanced vehicle armor, detonation jamming equipment, and route clearance devices. Yet the insurgency in Iraq has proven itself capable of adapting IEDs that remain prevalent and lethal. Because technical solutions at the tactical level will never defeat IEDs, the US must focus on strategic solutions to defeating IEDs.

Background: US Approaches Towards the IED Fight

An IED is defined as a "device placed or fabricated in an improvised manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals and designed to destroy, incapacitate, harass, or distract. It may incorporate military

stores, but is normally devised from non-military components."² In a reaction to these lethal and effective devices, the US military has placed its emphasis on vehicle upgrades, communication jamming devices, and route clearance measures. All of which, while mitigating the effects of IEDs, have proven incapable of defeating the IED.

The period 2004-2005 proved to be the most lethal years in Iraq. During this time the author served with 11th Marine Expeditionary Unit (MEU) as the transportation support detachment commander. All motor transportation Marines in the detachment and every infantry company in the MEU experienced IEDs. US casualties from IEDs spiked in 2004.³

In response to this threat, the Department of Defense established the Joint Improvised Explosive Device Defeat Organization (JIEDDO) to "lead and focus all DOD actions in support of combatant commanders in their efforts to counter IEDs."⁴ The Joint IED Defeat Organization (JIEDDO) was chartered based on the tenets of attacking the network, defeating the device, and training the force.⁴ However, the funding allocation indicates the priority has been on defeating the device by developing technical solutions such as enhancing armor on vehicles, jamming IED detonation devices, and developing route clearing devices.

The FY2008 budget dedicated toward IED defeat was 4.5 billion.⁵ Reviewing the breakdown of funding, however, is telling. Of that 4.5 billion, 2.7 million was spent on technical solutions, defeating the device, while \$926,000 (less than half), was spent on strategic solutions 'attacking the network.' Yet attacking the network is where true defeat of the IED lies. The band-aid-on-the-wound approach of technical solutions, while helpful for morale, and in some cases life and limb saving, does not attack what is central to defeating the IED: a willful militant population and a willing civilian population.

Tactical Advantages: Enhanced Force Protection and Morale

A host of anti-blast vehicles and armor upgrade kits have been introduced into theatre: A variety of mine resistant ambush protected (MRAP) vehicles flooded the roads in Iraq from 2005-2008. These vehicles offer significant enhanced blast protection against the IEDs previously detonated on roads in Iraq. This upgrade is a combat power multiplier as it not only increases the level of protection for US troops, but also increases confidence in the execution of dangerous missions along IED laden routes. A special forces soldier hand wrote a message of thanks on the door of his MRAP. (See fig 1)



Fig 1: Note from survivor U.S. Army photo

In April 2008, a member of the Special Forces wrote a note on the door of a MRAP in Basrah. "This truck saved my life as well as 5 others on 02 Apr 08 at 2300 in Basrah, IZ."⁶

Tactical Disadvantages: Cost versus Effectiveness

The protection of U.S. troops in harm's way is necessary, and good leaders demand it. If one American life is saved, then the efforts are not entirely in vein. However, such safety increasing programs still do not lead the US down a road toward IED defeat. This scenario equates to a patient taking a pain killer to relieve a headache. The pain killer simply masks the pain the patient feels: however, it does not change the conditions that cause headaches. Changing dietary habits, reducing stress, and resting properly all represent strategic ways in which the patient reduces the risk of headache. The MRAP program is the headache medicine of IEDs; it masks the

pain, yet it has little or no strategic effect toward defeating the cause. Enhanced armored vehicles do not attack the conditions that cause IEDs in the first place. In addition, the U.S. cannot convince Iraqi civilians that US forces are in control as vehicles grow larger and more protected, resembling a mechanized assault force instead of civilian friendly security force. The message this conveys is that IED operations are effective.

In addition the MRAP vehicle program is extremely costly. The average vehicle price is \$800,000 in order to defend against an IED threat that in most cases costs the insurgency only a few dollars to manufacture.⁷ Such disparity in cost calls into question the economic endurance tactical solutions will ultimately have in what General David Petraeus has described as a "Long War."⁸ The US military will to win has never been questioned during the Global War on Terrorism; however, the over reliance on such costly programs may degrade America's will to pay.

Similarly other expensive technical solutions are fraught with shortcomings. Several of the IED jamming devices used in 11th MEU shut down convoy navigation systems. During these convoys, choices were limited to travelling semi-protected and blind or travelling with navigational clarity, yet completely

unprotected from electronically detonated IEDs. Neither were good options.

While enemy IED operations evolve for pennies, the US fight to update its IED jamming capabilities costs millions. Global Security.org reports that in Feb 2004, a \$45,287,633 firm-fixed-price contract was awarded for 132 IED jamming devices.⁹ This situation is circular and equates to an expensive game of "cat and mouse," one in which the US, as the cat, pays millions to chase the insurgents, as the mouse.

Once more, route clearing devices that are designed to locate and render safe IEDs are an equally expensive technical solution to combating IEDs. Reuters reports a Virginia-based company was awarded an 820 million dollar contract for such devices.¹⁰ Like the MRAP, they are credited with enhancing force protection; however jamming devices, mine detonation, detection, and retrieval systems, have no strategic value but continue to present a significant expense for the United States.

Tactical Disadvantages: The Ease of Concealment and Adaptive Nature of IEDs

Despite several tactical solutions, IEDs remain a credible threat because they are an easily concealable and highly adaptive weapon. US troops operating along Iraqi roadways drive

past thousands of urban obstacles, any of which are easily transformed into IEDs. A typical day on the road includes a haphazard urban environment with hundreds of civilians standing near the roadway.¹¹ These pre-existing conditions make detonating an IED extremely easy; the insurgents simply blends back into the civilian population. Sophisticated weaponry and vehicle armor are no match against these conditions nor are they sufficient for defeat.

For example, the insurgency in Iraq took merely weeks to adapt to the MRAP armor upgraded vehicles. This adaptation took place in the form of the explosively formed penetrators or (EFP). EFPs use a shape charge that projects metal at a velocity capable of penetrating four inches of armor.¹² The original MRAP vehicles were not able to withstand such blasts.

Tactical Disadvantages: US Countermeasures Violate US Counterinsurgency Strategy

Lastly, technical measures like the MRAP program present myriad challenges outlined in the US counter insurgency strategy *FM-3-24/MCWP 3-33.5*. In the COIN field manual, chapter 6-81 states, "a central consideration includes the host nation's long-term ability to support and maintain the equipment."¹³ The introduction of the MRAP family introduces hundreds of new

sustainment considerations to include establishing new acquisition and maintenance procedures. Whereas an already established and highly capable US military exists, placing this logistical burden on a fledgling Iraqi military is a recipe for failure. However, if such equipment becomes the standard for maintaining peace by the US, then the Iraqi government will require the same robust equipment. In complete contradiction to the MRAP program, *FM 3-24* states "In COIN operations, having many versatile vehicles that require simple maintenance is often better than having a few highly capable armored vehicles or combat systems that require extensive maintenance."¹³

Maintaining US electronic jamming equipment and route clearing devices will present similar challenges for the Iraqi military as such devices require a developed logistical trail for reliability and sustainment. In contrast to this approach *FM 3-24 Counterinsurgency* states "Planners should consider HN economic and technological resources when selecting equipment."¹³ However, the current programs are all US manufactured and procured.

The Strength in Strategy

Tangibly the IED is a road side bomb; it is relatively cheap to manufacture and has shown extreme lethality. To defeat

the IED, however, one must think of the IED in intangible terms. The IED is a social mirror reflecting two images: One shows the will to usurp by a militant insurgency. The second image shows apathy by a local civilian population toward the situation. Attacking and winning against one of these intangible elements will defeat the IED in Iraq. Here is where the U.S. should seek to exploit a "gap" in its enemy. If insurgents are no longer willing to risk smuggling, manufacturing, or emplacing IEDs, then IEDs will no longer exist. If the civilian population of Iraq is no longer willing to allow insurgents to conduct IED operations, then IEDs will no longer exist. Attacking these two areas should be the central focus. A strategic approach is where true victory lies. Colonel Joseph Celeski warns "We are becoming experts at the tactical level and are getting better at the operational level for irregular warfare, but we need to work on the strategic levels."¹⁴

For instance the US Army's 10th Mountain Division serves as an excellent example of a tactical unit employing a strategic approach to the IED fight. Major Mark Aitken writes, "Reducing IED emplacement was our first priority, which included directing all lethal targeting efforts against the insurgent cell, including financiers, bomb makers, and transport personnel. Our unit's second priority was to conduct direct action operations

against actual IED emplacers.”¹⁵ Such efforts reduced IED emplacement in the 10th Mountain Division’s area of operation and lends strength to the importance of a strategic approach, even at the tactical level, toward IED defeat.

On the other hand, an emphasis on strategic operations may mean less on troop safety. The grim reality is a temporary surge in U.S. IED casualties may occur. It is during this transition that leaders will have the hardest time ensuring the American people, US troops, and perhaps themselves, that a strategic approach must maintain priority for the greater good of achieving victory.

Concluding Thoughts

IEDs do not exist across neighborhoods in America: Two reasons are a lack of will and intolerance by local communities. Should a U.S. citizen witness an IED being emplaced near his or her home he or she would call the police without fear of reprisal, or stop the IED perpetrator knowing the community would support such a decision. In Iraq such conditions currently do not exist and, hence, the U.S. continues to face a credible IED threat.

The US must focus on strategic solutions to defeating IEDs, because technical solutions at the tactical level will not

achieve defeat. Units that rely on superior technology and armor protection to mitigate the effectiveness of IEDs will find themselves playing an infinite and costly number of cat and mouse games. Changing these conditions will not be done through vehicle armor, jamming devices, or route clearing equipment. The units that attack networks, target civilian populations, and foster an environment of IED intolerance will achieve victory over the IED. The units that build trust and confidence amongst the civilian population will receive credible intelligence reports of IED operations. "[U]nderstanding [the strategic environment]...is the essence of fighting smart." ¹⁶

Word count: 2,038

Notes

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